

**Exhibit B**

# CURRENT PROTOCOLS IN MOLECULAR BIOLOGY

VOLUME 3

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**SDS electrophoresis buffer, 5×**

15.1 g Tris base  
72.0 g glycine  
5.0 g SDS  
 $H_2O$  to 1000 ml  
Dilute to 1× or 2× for working solution, as appropriate

*Do not adjust the pH of the stock solution, as the solution is pH 8.3 when diluted. Store at 0° to 4°C until use (up to 1 month).*

**SED (standard enzyme diluent)**

20 mM Tris·Cl, pH 7.5  
500  $\mu$ g/ml bovine serum albumin (Pentax Fraction V)  
10 mM 2-mercaptoethanol  
Store up to 1 month at 4°C

**Sodium acetate, 3 M**

Dissolve 408 g sodium acetate·3 $H_2O$  in 800 ml  $H_2O$   
Add  $H_2O$  to 1 liter  
Adjust pH to 4.8 or 5.2 (as desired) with 3 M acetic acid

**Sodium acetate buffer, 0.1 M**

*Solution A:* 11.55 ml glacial acetic acid/liter (0.2 M).  
*Solution B:* 27.2 g sodium acetate ( $NaC_2H_3O_2 \cdot 3H_2O$ )/liter (0.2 M).

Referring to Table A.2.2 for desired pH, mix the indicated volumes of solutions A and B, then dilute with  $H_2O$  to 100 ml. (See Potassium acetate buffer recipe for further details.)

**Sodium phosphate buffer, 0.1 M**

*Solution A:* 27.6 g  $NaH_2PO_4 \cdot H_2O$  per liter (0.2 M).  
*Solution B:* 53.65 g  $Na_2HPO_4 \cdot 7H_2O$  per liter (0.2 M).

Referring to Table A.2.3 for desired pH, mix the indicated volumes of solutions A and B, then dilute with  $H_2O$  to 200 ml. (See Potassium phosphate buffer recipe for further details.)

**SSC (sodium chloride/sodium citrate), 20×**

3 M NaCl (175 g/liter)  
0.3 M  $Na_3citrate \cdot 2H_2O$  (88 g/liter)  
Adjust pH to 7.0 with 1 M HCl

**STE buffer**

10 mM Tris Cl, pH 7.5  
10 mM NaCl  
1 mM EDTA, pH 8.0

**TAE (Tris/acetate/EDTA) electrophoresis buffer**

<i>50× stock solution:</i>	<i>Working solution, pH ~8.5:</i>
242 g Tris base	40 mM Tris-acetate
57.1 ml glacial acetic acid	2 mM $Na_2EDTA \cdot 2H_2O$
37.2 g $Na_2EDTA \cdot 2H_2O$	
$H_2O$ to 1 liter	

**TBE (Tris/borate/EDTA) electrophoresis buffer**

*10× stock solution, 1 liter:*  
108 g Tris base (890 mM)  
55 g boric acid (890 mM)  
40 ml 0.5 M EDTA, pH 8.0 (20 mM)

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**Appendix 2**

**A.2.5**